



MH-z1915
Quad LED Wash Zoom
moving head

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1 General notes

This manual contains important instructions for the safe operation of the unit. Read and follow the safety instructions and all other instructions. Keep the manual for future reference. Make sure that it is available to all those using the device. If you sell the unit please make sure that the buyer also receives this manual.

Our products are subject to a process of continuous development. Thus, they are subject to change.

1.1 Further information

On our website (www.thomann.de) you will find lots of further information and details on the following points:

| | |
|-----------------------|---|
| Download | This manual is also available as PDF file for you to download. |
| Keyword search | Use the search function in the electronic version to find the topics of interest for you quickly. |
| Online guides | Our online guides provide detailed information on technical basics and terms. |
| Personal consultation | For personal consultation please contact our technical hotline. |
| Service | If you have any problems with the device the customer service will gladly assist you. |

1.2 Notational conventions

This manual uses the following notational conventions:

Letterings

The letterings for connectors and controls are marked by square brackets and italics.

Examples: *[VOLUME]* control, *[Mono]* button.

Displays

Texts and values displayed on the device are marked by quotation marks and italics.

Examples: *'24ch'*, *'OFF'*.

Text input

Text inputs that are carried out on the device are indicated by typewriter font.

Example: 2323


Cross-references



References to other locations in this manual are identified by an arrow and the specified page number. In the electronic version of the manual, you can click the cross-reference to jump to the specified location.

Example: See ↗ *'Cross-references' on page 7.*

1.3 Symbols and signal words

In this section you will find an overview of the meaning of symbols and signal words that are used in this manual.

| Signal word | Meaning |
|---|--|
| DANGER! | This combination of symbol and signal word indicates an immediate dangerous situation that will result in death or serious injury if it is not avoided. |
| WARNING! | This combination of symbol and signal word indicates a possible dangerous situation that can result in death or serious injury if it is not avoided. |
| CAUTION! | This combination of symbol and signal word indicates a possible dangerous situation that can result in minor injury if it is not avoided. |
| NOTICE! | This combination of symbol and signal word indicates a possible dangerous situation that can result in material and environmental damage if it is not avoided. |
| Warning signs | Type of danger |
|  | Warning – high-voltage. |

| Warning signs | Type of danger |
|---|---------------------------|
|  | Warning – suspended load. |
|  | Warning – danger zone. |

2 Safety instructions

Intended use

This device is intended to be used as moving-head spotlight. The device is designed for professional use and is not suitable for use in households. Use the device only as described in this user manual. Any other use or use under other operating conditions is considered to be improper and may result in personal injury or property damage. No liability will be assumed for damages resulting from improper use.

This device may be used only by persons with sufficient physical, sensorial, and intellectual abilities and having corresponding knowledge and experience. Other persons may use this device only if they are supervised or instructed by a person who is responsible for their safety.

Safety



DANGER!

Danger for children

Ensure that plastic bags, packaging, etc. are disposed of properly and are not within reach of babies and young children. Choking hazard!

Ensure that children do not detach any small parts (e.g. knobs or the like) from the unit. They could swallow the pieces and choke!

Never let children unattended use electrical devices.



DANGER!

Electric shock caused by high voltages inside

Within the device there are areas where high voltages may be present. Never remove any covers.

There are no user-serviceable parts inside.

Do not use the device if covers, protectors or optical components are missing or damaged.



DANGER!

Electric shock caused by short-circuit

Always use proper ready-made insulated mains cabling (power cord) with a protective contact plug. Do not modify the mains cable or the plug. Failure to do so could result in electric shock/death or fire. If in doubt, seek advice from a registered electrician.



WARNING!

Eye damage caused by high light intensity

Never look directly into the light source.



WARNING!

Risk of epileptic shock

Strobe lighting can trigger seizures in photosensitive epilepsy. Sensitive persons should avoid looking at strobe lights.



WARNING!

Risk of injury by falling off

Make sure that the installation complies with the standards and rules that apply in your country. Always secure the device with a secondary safety attachment, such as a safety cable or a safety chain.

The carrying capacity of the truss or other mounting must be sufficient for the intended number of devices. Note that the movement of the head may additionally stress the load-bearing structures.



CAUTION!

Risk of injury due to movements of the device

The head of the device can move quickly (pan, tilt) and can produce very bright light. This is also valid immediately after you turn on the device, when the device operates in automatic mode or under remote control and when you turn off a DMX controller that is connected to the device. Persons staying near the device could be injured or frightened.

Before you turn on the device and during the operation, always ensure that nobody stays close to the device. If work has to be performed in the area of movement or in the near vicinity of the device, it must remain turned off.



NOTICE!

Risk of fire

Do not cover the device nor any ventilation slots. Do not place the device near any direct heat source. Keep the device away from naked flames.



NOTICE!

Operating conditions

This device has been designed for indoor use only. To prevent damage, never expose the device to any liquid or moisture. Avoid direct sunlight, heavy dirt, and strong vibrations.

The device must not be moved while it is in use.



NOTICE!

Power supply

Before connecting the device, ensure that the input voltage (AC outlet) matches the voltage rating of the device and that the AC outlet is protected by a residual current circuit breaker. Failure to do so could result in damage to the device and possibly injure the user.

Unplug the device before electrical storms occur and when it is unused for long periods of time to reduce the risk of electric shock or fire.

3 Features

The moving head is particularly suitable for professional lighting tasks, for example at events, on rock stages, in theatres and musicals or in discotheques.

Special features of the device:

- 19 four-colour LEDs (RGBW, 15 W each)
- Control via DMX (14 or 34 channels) and via buttons and display on the unit
- Preprogrammed automatic show programmes
- Sound control
- Master / Slave mode
- Strobe effect
- Electronic dimmer
- Robust housing with two integrated carrying handles
- Zoom optics provides high colour fidelity in all mixing and zooming
- Mounting bracket and safety cable eyelet supplied

4 Installation

Unpack and carefully check that there is no transportation damage before using the unit. Keep the equipment packaging. To fully protect the device against vibration, dust and moisture during transportation or storage use the original packaging or your own packaging material suitable for transport or storage, respectively.

Lift the device only at the base. When lifted at the rotatable mounting, the device may be damaged.

You can install the device standing or hanging. When in use, the device must be mounted at a solid surface or clamped to an approved truss.

Work from a stable platform whenever you install or move the device or when you perform any kind of maintenance. Block access under the work area.

**WARNING!****Risk of injury by falling off**

Make sure that the installation complies with the standards and rules that apply in your country. Always secure the device with a secondary safety attachment, such as a safety cable or a safety chain.

The carrying capacity of the truss or other mounting must be sufficient for the intended number of devices. Note that the movement of the head may additionally stress the load-bearing structures.

**NOTICE!****Risk of overheating**

Always ensure sufficient ventilation.

The ambient temperature must always be below 40 °C (104 °F).



NOTICE!

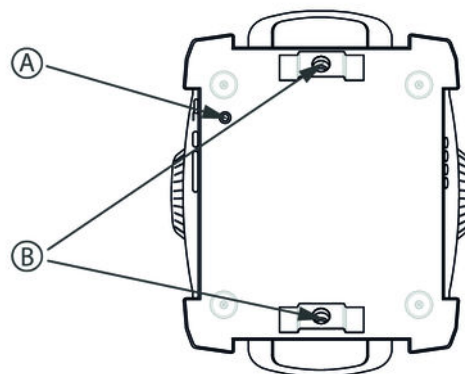
Possible data transmission errors

For error-free operation make use of dedicated DMX cables and do not use ordinary microphone cables.

Never connect the DMX input or output to audio devices such as mixers or amplifiers.

Mounting options

The threads on the case bottom are used for secure mounting. Either the supplied mounting bracket or flight adapters (half coupler, trigger clamps, C-hooks, etc.) can be attached to the two opposite threads (B). The third thread on the case bottom (A) is provided for the supplied safety cable eyelet. The safety cable must be guided through this safety eyelet.



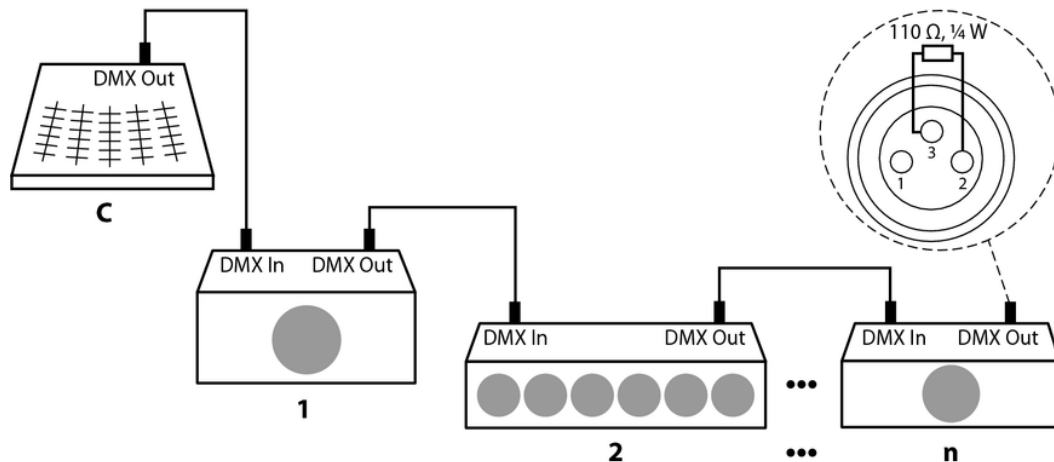
| | |
|---|---|
| A | Thread for safety cable eyelet |
| B | Thread for supplied mounting bracket or flight adapters (half coupler, trigger clamps, C-hooks, etc.) |

5 Starting up

Establish all connections as long as the unit is switched off. Use the shortest possible high-quality cables for all connections.

Connections in DMX mode

Connect the DMX input of the device to the DMX output of a DMX controller or another DMX device. Connect the output of the first DMX device to the input of the second one, and so on to form a daisy chain. Always ensure that the output of the last DMX device in the daisy chain is terminated with a resistor ($110\ \Omega$, $\frac{1}{4}\text{ W}$).

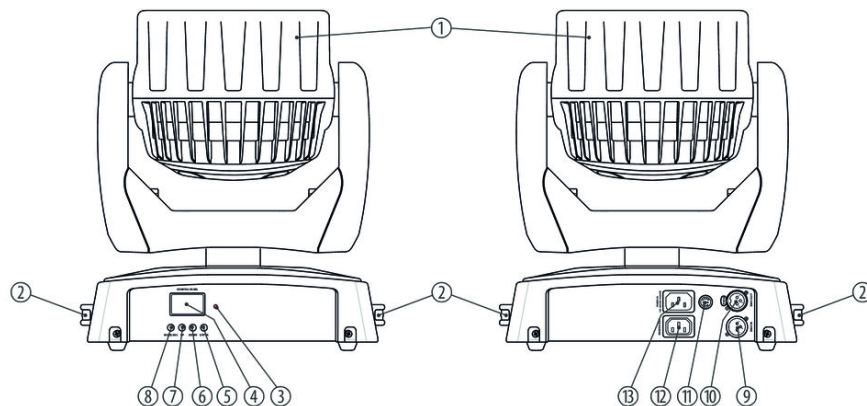


The flashing 'DMX' LED indicates an incoming DMX signal.

Connections in master/slave mode

When you configure a group of devices in master/slave mode, the first unit will control the other units for an automatic, sound-activated, synchronized show. This function is ideal when you want to start a show immediately. Connect the DMX output of the master device to the DMX input of the first slave device. Then connect the DMX output of the first slave device to the DMX input of the second slave device and so on.

6 Connections and operating elements



1 Spotlight head with LEDs.

2 Carrying handles.

| | |
|----|--|
| 3 | DMX indicator. |
| 4 | Display. |
| 5 | <i>[ENTER]</i> Selects an option of the respective operating mode. |
| 6 | <i>[DOWN]</i> Decreases the displayed value by one. |
| 7 | <i>[UP]</i> Increases the displayed value by one. |
| 8 | <i>[MODE/ESC]</i> Activates the main menu and toggles between menu items. Closes an open sub-menu without saving any changes. |
| 9 | <i>[DMX IN]</i> DMX input. |
| 10 | <i>[DMX OUT]</i> DMX output. |

| | |
|----|---|
| 11 | Fuse holder. If the fuse blows, replace it with a new fuse of the same type. You must first disconnect the device from the power supply. |
| 12 | <i>[POWER OUT]</i> IEC chassis socket for the power supply cable to the next unit. |
| 13 | <i>[POWER IN]</i> IEC chassis plug for the power supply. |

7 Operating

7.1 Starting the device

**CAUTION!****Risk of injury due to movements of the device**

The head of the device can move quickly (pan, tilt) and can produce very bright light. This is also valid immediately after you turn on the device, when the device operates in automatic mode or under remote control and when you turn off a DMX controller that is connected to the device. Persons staying near the device could be injured or frightened.

Before you turn on the device and during the operation, always ensure that nobody stays close to the device. If work has to be performed in the area of movement or in the near vicinity of the device, it must remain turned off.

Connect the device to the power supply to start operation. After a few seconds, the fans start to work, the head moves to the home positions for rotation (pan) and inclination (tilt). After a few more seconds, the display shows 'Run – Addr001'. Now the device is then ready for use.

7.2 Main menu

Press *[MODE/ESC]* to activate the main menu. Press *[UP]* and *[DOWN]* to select a main menu item and *[ENTER]* to open the selected menu item.

Use *[UP]* and *[DOWN]* to change the respectively indicated value. When the display shows the desired value press *[ENTER]*. To return to the parent menu without making changes, press *[MODE/ESC]*.

If you don't press any button for about 30 seconds the display turns off. Then press *[MODE/ESC]* briefly to turn it on again.

All previous settings are retained even when you switch the device off and disconnect it from the mains. To restart with default values, use the function 'Load set' (↺ 'Loading default values' on page 40).

DMX address

Press *[MODE/ESC]* to activate the main menu. Press *[UP]* and *[DOWN]* until 'DMX Address' flashes in the top row of the display. Press *[ENTER]* to open this menu item. Now you can set the number of the first DMX channel to be used by the device (DMX address). Use *[UP]* and *[DOWN]* to select a value between 1 and 512.

When the display shows the desired value press *[ENTER]* to confirm the setting and then *[MODE/ESC]* to change to the next menu item. To change the menu item without making changes, press *[MODE/ESC]*.

Make sure that this number matches the configuration of your DMX controller. The following table shows the highest possible DMX address for the various DMX modes

| Mode | Highest possible DMX address |
|-------------|------------------------------|
| 14 channels | 499 |
| 34 channels | 479 |

Operating mode 'Auto-Show'

Press *[MODE/ESC]* to activate the main menu. Press *[UP]* and *[DOWN]* until 'Run' flashes in the top row of the display. Press *[ENTER]* to open this menu item. With *[UP]* and *[DOWN]* you can now select the operating mode: Press *[ENTER]* to start operation in the selected mode.

| Menu display | Operating mode |
|--------------|---|
| 'Slow' | Slow automatic show in Stand-alone mode |
| 'Fast' | Fast automatic show in Stand-alone mode |
| 'Slave' | Preprogrammed show in Slave mode |
| 'Sound' | Sound-controlled show in Stand-alone mode |

Pan inversion

Press *[MODE/ESC]* to activate the main menu. Press *[UP]* and *[DOWN]* until the top row of the display 'Pan' flashes. Press *[ENTER]* to open this menu item. With *[UP]* and *[DOWN]* you can now choose between 'Reverse' (reverse rotational direction) and 'Normal' (normal rotational direction).

When the display shows the desired value press *[ENTER]* to confirm the setting and then *[MODE/ESC]* to change to the next menu item. To change the menu item without making changes, press *[MODE/ESC]*.

Tilt inversion

Press *[MODE/ESC]* to activate the main menu. Press *[UP]* and *[DOWN]* until the top row of the display 'Tilt' flashes. Press *[ENTER]* to open this menu item. With *[UP]* and *[DOWN]* you can now choose between 'Reverse' (reverse direction of inclination) and 'Normal' (normal direction of inclination).

When the display shows the desired value press *[ENTER]* to confirm the setting and then *[MODE/ESC]* to change to the next menu item. To change the menu item without making changes, press *[MODE/ESC]*.

Motor speed

Press *[MODE/ESC]* to activate the main menu. Press *[UP]* and *[DOWN]* until 'PT Speed' flashes in the top row of the display. Press *[ENTER]* to open this menu item. With *[UP]* and *[DOWN]* you can now select between 'Slow' (low speed for Pan and Tilt), 'Normal' (medium speed) and 'Fast' (high speed).

When the display shows the desired value press *[ENTER]* to confirm the setting and then *[MODE/ESC]* to change to the next menu item. To change the menu item without making changes, press *[MODE/ESC]*.

Fan control

Press *[MODE/ESC]* to activate the main menu. Press *[UP]* and *[DOWN]* until 'Fans' flashes in the top row of the display. Press *[ENTER]* to open this menu item. With *[UP]* and *[DOWN]* you can now select between 'Auto' (automatic fan speed control depending on device temperature) and 'Full' (maximum fan speed).

When the display shows the desired value press *[ENTER]* to confirm the setting and then *[MODE/ESC]* to change to the next menu item. To change the menu item without making changes, press *[MODE/ESC]*.

Display on time

Press *[MODE/ESC]* to activate the main menu. Press *[UP]* and *[DOWN]* until 'Display' flashes in the top row of the display. Press *[ENTER]* to open this menu item. With *[UP]* and *[DOWN]* you can now select between 'Bright' (display constantly on) and '30 Close' (displays turns off after 30 seconds without any key press).

When the display shows the desired value press *[ENTER]* to confirm the setting and then *[MODE/ESC]* to change to the next menu item. To change the menu item without making changes, press *[MODE/ESC]*.

Pan area

Press *[MODE/ESC]* to activate the main menu. Press *[UP]* and *[DOWN]* until '*P Angle*' flashes in the top row of the display. Press *[ENTER]* to open this menu item. With *[UP]* and *[DOWN]* you can now specify the Pan range. Choose between '*540*' (Pan range = 540°), '*360*' (Pan range = 360°) and '*180*' (Pan range = 180°).

When the display shows the desired value press *[ENTER]* to confirm the setting and then *[MODE/ESC]* to change to the next menu item. To change the menu item without making changes, press *[MODE/ESC]*.

Tilt area

Press *[MODE/ESC]* to activate the main menu. Press *[UP]* and *[DOWN]* until '*T Angle*' flashes in the top row of the display. Press *[ENTER]* to open this menu item. With *[UP]* and *[DOWN]* you can now specify the Tilt range. Choose between '*270*' (Tilt range = 270°), '*180*' (Tilt range = 180°) and '*90*' (Tilt range = 90°).

When the display shows the desired value press *[ENTER]* to confirm the setting and then *[MODE/ESC]* to change to the next menu item. To change the menu item without making changes, press *[MODE/ESC]*.

Operating mode 'DMX'

Press *[MODE/ESC]* to activate the main menu. Press *[UP]* and *[DOWN]* until 'Channel' flashes in the top row of the display. Press *[ENTER]* to open this menu item. With *[UP]* and *[DOWN]* you can now select one of the following DMX operating modes: 14-channel (display shows '14CH') or 34-channel (display shows '34CH'). This setting is only relevant if the device is controlled via DMX.

When the display shows the desired value press *[ENTER]* to confirm the setting and then *[MODE/ESC]* to change to the next menu item. To change the menu item without making changes, press *[MODE/ESC]*.

Temperature display

Press *[MODE/ESC]* to activate the main menu. Press *[UP]* and *[DOWN]* until 'TempDisp' flashes in the top row of the display. Press *[ENTER]* to let the display show the current LED temperature.

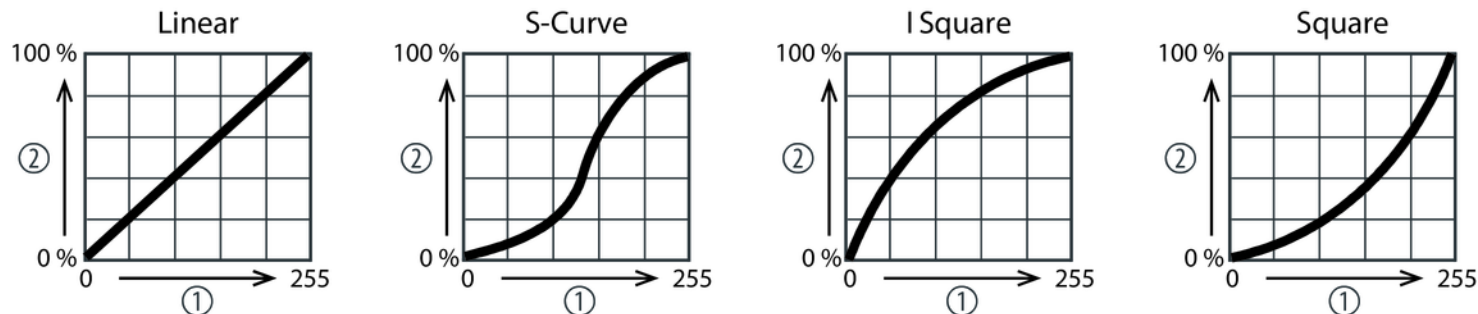
Press *[MODE/ESC]* to quit the menu.

Dimmer curve

Press **[MODE/ESC]** to activate the main menu. Press **[UP]** and **[DOWN]** until **'DimCurve'** flashes in the top row of the display. Press **[ENTER]** to open this menu item. With **[UP]** and **[DOWN]** you can now select one of the following dimmer curves: The dimmer curve determines how the brightness increases or decreases depending on the set DMX value. This setting is only relevant if the device is controlled via DMX.

When the display shows the desired value press **[ENTER]** to confirm the setting and then **[MODE/ESC]** to change to the next menu item. To change the menu item without making changes, press **[MODE/ESC]**.

| Display | Description |
|------------|--|
| 'Linear' | Linear (proportional) course |
| 'S Curve' | Non-linear curve with a distinctive flat profile at the beginning and end |
| 'I Square' | Inverted quadratic curve with a steep profile at the beginning and flat profile at the end |
| 'Square' | Inverted square curve with a steep profile at the beginning and flat profile at the end |



The figure schematically shows the adjustable dimmer curves. Depending on the selected DMX value (1) the device lights with a brightness (2) between 0 % and 100 %.

Dimmer speed

Press **[MODE/ESC]** to activate the main menu. Press **[UP]** and **[DOWN]** until 'DimSpeed' flashes in the top row of the display. Press **[ENTER]** to open this menu item. With **[UP]** and **[DOWN]** you can now select one of the following dimmer speed values: 'Fast' or 'Smooth' (slow).

When the display shows the desired value press **[ENTER]** to confirm the setting and then **[MODE/ESC]** to change to the next menu item. To change the menu item without making changes, press **[MODE/ESC]**.

White balance

Press *[MODE/ESC]* to activate the main menu. Press *[UP]* and *[DOWN]* until 'Balance' flashes in the top row of the display. Press *[ENTER]* to open this menu item. With *[UP]* and *[DOWN]* you can now select the primary colour you want to set: 'BalanceR' (red), 'BalanceG' (green), 'BalanceB' (blue), 'BalanceW' (white). Press again *[ENTER]*. With *[UP]* and *[DOWN]* you can now set a value between 100 and 255 for the selected colour.

When the display shows the desired value press *[ENTER]* to confirm the setting and then *[MODE/ESC]* to change to the next menu item. To change the menu item without making changes, press *[MODE/ESC]*.

Microphone sensitivity

Press *[MODE/ESC]* to activate the main menu. Press *[UP]* and *[DOWN]* until 'Sens' flashes in the top row of the display. Press *[ENTER]* to open this menu item. With *[UP]* and *[DOWN]* you can now set the sensitivity for the sound control: Use *[UP]* and *[DOWN]* to select a value between 1 (low sensitivity) and 100 (high sensitivity).

When the display shows the desired value press *[ENTER]* to confirm the setting and then *[MODE/ESC]* to change to the next menu item. To change the menu item without making changes, press *[MODE/ESC]*.

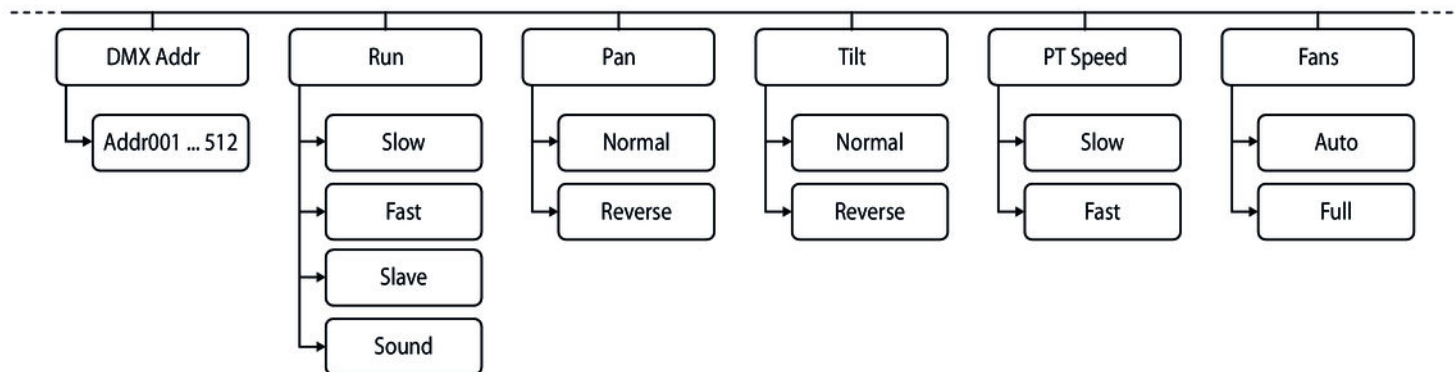
System reset

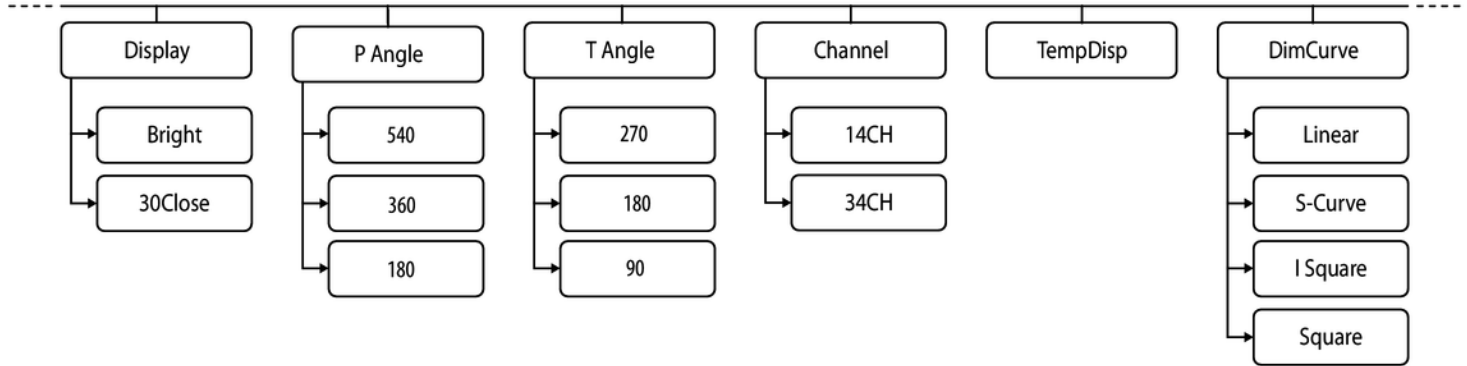
Press *[MODE/ESC]* to activate the main menu. Press *[UP]* and *[DOWN]* until 'Reset System' flashes in the top row of the display. Press *[ENTER]* to open this menu item. With *[UP]* and *[DOWN]* you can now select one of the following options 'No' or 'Ok'. Select 'Ok' and press *[ENTER]* to reset all movable axes to their home positions.

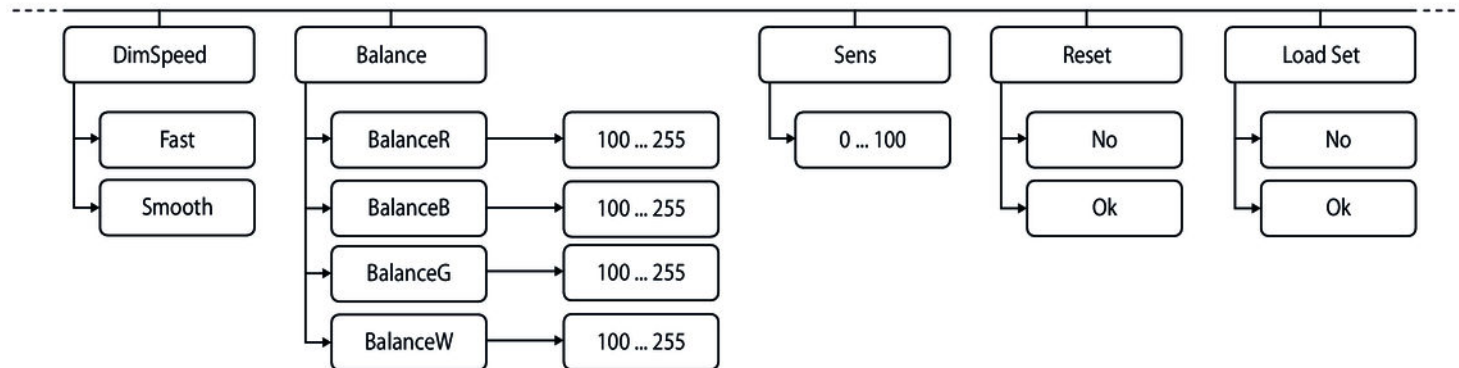
Loading default values

Press *[MODE/ESC]* to activate the main menu. Press *[UP]* and *[DOWN]* until 'Load Set' flashes in the top row of the display. Press *[ENTER]* to open this menu item. With *[UP]* and *[DOWN]* you can now select one of the following options 'No' or 'Ok'. Select 'Ok' and press *[ENTER]* to reset all values to their factory default settings.

7.3 Menu overview (main menu)







7.4 Settings menu

Press *[MODE/ESC]* for at least five seconds to enable the settings menu. Use *[UP]* or *[DOWN]* to enter the password 2323 for the device. At that, the button *[UP]* changes the digit in the cursor position, the button *[DOWN]* moves the cursor to the next position. Press *[ENTER]* when all digits are entered.

Press *[MODE/ESC]* twice to quit the settings menu.

All settings done here are retained even when you disconnect the device from the mains.

Rotation (alignment)

Activate the settings menu. Press *[UP]* and *[DOWN]* until the top row of the display 'Pan' flashes. Press *[ENTER]* to open this menu item. Use the buttons *[UP]* or *[DOWN]* to adjust the desired home position.

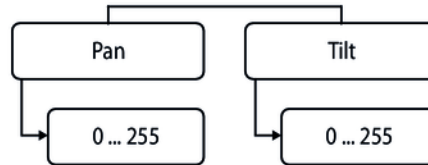
When the display shows the desired value press *[ENTER]* to confirm the setting and then *[MODE/ESC]* to change to the next menu item. To change the menu item without making changes, press *[MODE/ESC]*.

Inclination (alignment)

Activate the settings menu. Press *[UP]* and *[DOWN]* until the top row of the display 'Tilt' flashes. Press *[ENTER]* to open this menu item. Use the buttons *[UP]* or *[DOWN]* to adjust the desired home position.

When the display shows the desired value press *[ENTER]* to confirm the setting and then *[MODE/ESC]* to change to the next menu item. To change the menu item without making changes, press *[MODE/ESC]*.

7.5 Menu overview (settings menu)



7.6 Functions in 14-channel DMX mode

| Channel | Value | Function |
|---------|-----------------------------|--|
| 1 | 0 ... 255 | Rotation (0° up to the maximum value of the Pan area: 180°, 270° or 540°) |
| 2 | 0 ... 255 | Inclination (0° up to the maximum value of the Tilt area: 90°, 180° or 270°) |
| 3 | 0 ... 255 | Movement speed (fast to slow) |
| 4 | 0 ... 255 | Intensity Red (0 % to 100 %), if channel 8 = 0 |
| 5 | 0 ... 255 | Intensity Green (0 % to 100 %), if channel 8 = 0 |
| 6 | 0 ... 255 | Intensity Blue (0 % to 100 %), if channel 8 = 0 |
| 7 | 0 ... 255 | Intensity White (0 % to 100 %), if channel 8 = 0 |
| 8 | Preprogrammed light effects | |
| | 0 ... 15 | No light effect |
| | 16 ... 20 | Light effect 1 (colour setting with channel 4 to 7). |
| | 21 ... 25 | Light effect 2 (colour setting with channel 4 to 7). |

| Channel | Value | Function |
|---------|-----------|---|
| | 26 ... 30 | Light effect 3 (colour setting with channel 4 to 7). |
| | 31 ... 35 | Light effect 4 (colour setting with channel 4 to 7). |
| | 36 ... 40 | Light effect 5 (colour setting with channel 4 to 7). |
| | 41 ... 45 | Light effect 6 (colour setting with channel 4 to 7). |
| | 46 ... 50 | Light effect 7 (colour setting with channel 4 to 7). |
| | 51 ... 55 | Light effect 8 (colour setting with channel 4 to 7). |
| | 56 ... 60 | Light effect 9 (colour setting with channel 4 to 7). |
| | 61 ... 65 | Light effect 10 (colour setting with channel 4 to 7). |
| | 66 ... 70 | Light effect 11 (colour setting with channel 4 to 7). |
| | 71 ... 75 | Light effect 12 (colour setting with channel 4 to 7). |
| | 76 ... 80 | Light effect 13 (colour setting with channel 4 to 7). |
| | 81 ... 85 | Light effect 14 (colour setting with channel 4 to 7). |
| | 86 ... 90 | Light effect 15 (colour setting with channel 4 to 7). |

| Channel | Value | Function |
|---------|-------------|---|
| | 91 ... 95 | Light effect 16 (colour setting with channel 4 to 7). |
| | 96 ... 100 | Light effect 17 (colour setting with channel 4 to 7). |
| | 101 ... 105 | Light effect 18 (colour setting with channel 4 to 7). |
| | 106 ... 110 | Light effect 19 (colour setting with channel 4 to 7). |
| | 111 ... 115 | Light effect 20 (colour setting with channel 4 to 7). |
| | 116 ... 120 | Light effect 21 (colour setting with channel 4 to 7). |
| | 121 ... 125 | Light effect 22 (colour setting with channel 4 to 7). |
| | 126 ... 130 | Light effect 23 (colour setting with channel 4 to 7). |
| | 131 ... 135 | Light effect 24 (colour setting with channel 4 to 7). |
| | 136 ... 140 | Light effect 25 (multi-colour) |
| | 141 ... 145 | Light effect 26 (multi-colour) |
| | 146 ... 150 | Light effect 27 (multi-colour) |
| | 151 ... 155 | Light effect 28 (multi-colour) |

| Channel | Value | Function |
|---------|-------------|--------------------------------|
| | 156 ... 160 | Light effect 29 (multi-colour) |
| | 161 ... 165 | Light effect 30 (multi-colour) |
| | 166 ... 170 | Light effect 31 (multi-colour) |
| | 171 ... 175 | Light effect 32 (multi-colour) |
| | 176 ... 180 | Light effect 33 (multi-colour) |
| | 181 ... 185 | Light effect 34 (multi-colour) |
| | 186 ... 190 | Light effect 35 (multi-colour) |
| | 191 ... 195 | Light effect 36 (multi-colour) |
| | 196 ... 200 | Light effect 37 (multi-colour) |
| | 201 ... 205 | Light effect 38 (multi-colour) |
| | 206 ... 210 | Light effect 39 (multi-colour) |
| | 211 ... 215 | Light effect 40 (multi-colour) |
| | 216 ... 220 | Light effect 41 (multi-colour) |

| Channel | Value | Function |
|---------|-------------|---|
| | 221 ... 225 | Light effect 42 (multi-colour) |
| | 226 ... 230 | Light effect 43 (multi-colour) |
| | 231 ... 235 | Light effect 44 (multi-colour) |
| | 236 ... 240 | Light effect 45 (multi-colour) |
| | 241 ... 245 | Light effect 46 (multi-colour) |
| | 246 ... 250 | Light effect 47 (multi-colour) |
| | 251 ... 255 | Light effect 48 (multi-colour) |
| 9 | 0 ... 255 | Preprogrammed effects speed (from slow to fast) |
| 10 | 0 ... 255 | Dimmer (0 % to 100 %) |
| 11 | Shutter | |
| | 0 ... 19 | Closed |
| | 20 ... 24 | Open |
| | 25 ... 64 | Strobe effect 1 from fast to slow |

| Channel | Value | Function |
|---------|-------------|--|
| | 65 ... 69 | Open |
| | 70 ... 84 | Strobe effect 2 (fast on, slow off), from fast to slow consecutively |
| | 85 ... 89 | Open |
| | 90 ... 104 | Strobe effect 3 (slow on, fast off), from fast to slow consecutively |
| | 105 ... 109 | Open |
| | 110 ... 124 | Strobe effect 4 (random), from fast to slow consecutively |
| | 125 ... 129 | Open |
| | 130 ... 144 | Strobe effect 5 (random, fast on, slow off), from fast to slow consecutively |
| | 145 ... 149 | Open |
| | 150 ... 164 | Strobe effect 6 (random, slow on, fast off), from fast to slow consecutively |
| | 165 ... 169 | Open |
| | 170 ... 184 | Strobe effect 6 (Pulse series), pulse interval increasing |
| | 185 ... 189 | Open |

| Channel | Value | Function |
|---------|------------------|---|
| | 190 ... 204 | Strobe effect 8 (Pulse series with random frequency), from fast to slow consecutively |
| | 205 ... 209 | Open |
| | 210 ... 224 | Strobe effect 9 (single pulses), from fast to slow consecutively |
| | 225 ... 229 | Open |
| | 230 ... 244 | Strobe effect 6 (inverted Pulse series), pulse interval increasing |
| | 245 ... 255 | Open |
| 12 | 0 ... 255 | Optical zoom, large to small |
| 13 | Special settings | |
| | 0 ... 9 | Without function |
| | 10 ... 14 | Stop of current movement (pan or tilt) |
| | 15 ... 49 | Without function |
| | 50 ... 54 | Rotation position reset |
| | 55 ... 59 | Inclination position reset |

| Channel | Value | Function |
|---------|-------------|--|
| | 60 ... 64 | Optical zoom reset |
| | 65 ... 69 | Without function |
| | 70 ... 74 | All functions reset |
| | 75 ... 79 | Without function |
| | 80 ... 84 | Inversion of rotation and inclination direction |
| | 85 ... 89 | Inversion of rotation direction |
| | 90 ... 94 | Inversion of inclination direction |
| | 95 ... 99 | Cancel inversion of rotation direction |
| | 100 ... 104 | Cancel inversion of inclination direction |
| | 105 ... 109 | Cancel inversion of rotation and inclination direction |
| | 110 ... 114 | Movement speed normal |
| | 115 ... 119 | Movement speed fast |
| | 120 ... 124 | Movement speed slow |

| Channel | Value | Function |
|---------|--------------------------------|---|
| | 125 ... 129 | Maximum fan speed |
| | 130 ... 134 | Automatic fan speed control depending on device temperature |
| | 135 ... 139 | Dimmer speed fast |
| | 140 ... 144 | Dimmer speed slow |
| | 145 ... 255 | Without function |
| 14 | Preprogrammed movement pattern | |
| | 0 ... 7 | No movement |
| | 8 ... 23 | Movement pattern 1 |
| | 24 ... 39 | Movement pattern 2 |
| | 40 ... 55 | Movement pattern 3 |
| | 56 ... 71 | Movement pattern 4 |
| | 72 ... 87 | Movement pattern 5 |
| | 88 ... 103 | Movement pattern 6 |

| Channel | Value | Function |
|---------|-------------|---------------------------------------|
| | 104 ... 119 | Movement pattern 7 |
| | 120 ... 135 | Movement pattern 8 |
| | 136 ... 151 | Movement pattern 1 with sound control |
| | 152 ... 167 | Movement pattern 2 with sound control |
| | 168 ... 183 | Movement pattern 3 with sound control |
| | 184 ... 199 | Movement pattern 4 with sound control |
| | 200 ... 215 | Movement pattern 5 with sound control |
| | 216 ... 231 | Movement pattern 6 with sound control |
| | 232 ... 247 | Movement pattern 7 with sound control |
| | 248 ... 255 | Movement pattern 8 with sound control |

7.7 Functions in 34-channel DMX mode

| Channel | Value | Function |
|---------|-----------|--|
| 1 | 0 ... 255 | Rotation (0° up to the maximum value of the Pan area: 180°, 270° or 540°) |
| 2 | 0 ... 255 | Fine adjustment for rotation (pan) |
| 3 | 0 ... 255 | Inclination (0° up to the maximum value of the Tilt area: 90°, 180° or 270°) |
| 4 | 0 ... 255 | Fine adjustment for inclination (tilt) |
| 5 | 0 ... 255 | Movement speed (fast to slow) |
| 6 | 0 ... 255 | Intensity Red (0 % to 100 %), LED group 1 (↪ 'LED groups' on page 75) |
| 7 | 0 ... 255 | Intensity Green (0 % to 100 %), LED group 1 |
| 8 | 0 ... 255 | Intensity Blue (0 % to 100 %), LED group 1 |
| 9 | 0 ... 255 | Intensity White (0 % to 100 %), LED group 1 |
| 10 | 0 ... 255 | Intensity Red (0 % to 100 %), LED group 2 |
| 11 | 0 ... 255 | Intensity Green (0 % to 100 %), LED group 2 |

| Channel | Value | Function |
|---------|-----------|---|
| 12 | 0 ... 255 | Intensity Blue (0 % to 100 %), LED group 2 |
| 13 | 0 ... 255 | Intensity White (0 % to 100 %), LED group 2 |
| 14 | 0 ... 255 | Intensity Red (0 % to 100 %), LED group 3 |
| 15 | 0 ... 255 | Intensity Green (0 % to 100 %), LED group 3 |
| 16 | 0 ... 255 | Intensity Blue (0 % to 100 %), LED group 3 |
| 17 | 0 ... 255 | Intensity White (0 % to 100 %), LED group 3 |
| 18 | 0 ... 255 | Intensity Red (0 % to 100 %), LED group 4 |
| 19 | 0 ... 255 | Intensity Green (0 % to 100 %), LED group 4 |
| 20 | 0 ... 255 | Intensity Blue (0 % to 100 %), LED group 4 |
| 21 | 0 ... 255 | Intensity White (0 % to 100 %), LED group 4 |
| 22 | 0 ... 255 | Intensity Red (0 % to 100 %), LED group 5 |
| 23 | 0 ... 255 | Intensity Green (0 % to 100 %), LED group 5 |
| 24 | 0 ... 255 | Intensity Blue (0 % to 100 %), LED group 5 |

| Channel | Value | Function |
|---------|---|---|
| 25 | 0 ... 255 | Intensity White (0 % to 100 %), LED group 5 |
| 26 | Colour setting The adjustable colours and the corresponding numbers are listed on a separate information sheet, which is available online. | |
| | 0 ... 4 | Dark |
| | 5 ... 9 | Colour 1 |
| | 10 ... 14 | Colour 2 |
| | 15 ... 19 | Colour 3 |
| | 20 ... 24 | Colour 4 |
| | 25 ... 29 | Colour 5 |
| | 30 ... 34 | Colour 6 |
| | 35 ... 39 | Colour 7 |
| | 40 ... 44 | Colour 8 |

| Channel | Value | Function |
|---------|-------------|-----------|
| | 45 ... 49 | Colour 9 |
| | 50 ... 54 | Colour 10 |
| | 55 ... 59 | Colour 11 |
| | 60 ... 64 | Colour 12 |
| | 65 ... 69 | Colour 13 |
| | 70 ... 74 | Colour 14 |
| | 75 ... 79 | Colour 15 |
| | 80 ... 84 | Colour 16 |
| | 85 ... 89 | Colour 17 |
| | 90 ... 94 | Colour 18 |
| | 95 ... 99 | Colour 19 |
| | 100 ... 104 | Colour 20 |
| | 105 ... 109 | Colour 21 |

| Channel | Value | Function |
|---------|-------------|-----------|
| | 110 ... 114 | Colour 22 |
| | 115 ... 119 | Colour 23 |
| | 120 ... 124 | Colour 24 |
| | 125 ... 129 | Colour 25 |
| | 130 ... 134 | Colour 26 |
| | 135 ... 139 | Colour 27 |
| | 140 ... 144 | Colour 28 |
| | 145 ... 149 | Colour 29 |
| | 150 ... 154 | Colour 30 |
| | 155 ... 159 | Colour 31 |
| | 160 ... 164 | Colour 32 |
| | 165 ... 169 | Colour 33 |
| | 170 ... 174 | Colour 34 |

| Channel | Value | Function |
|---------|--|---|
| | 175 ... 179 | Dark |
| | 180 ... 201 | Automatic gradual change from colour 1 to 34 in ascending order, from fast to slow |
| | 202 ... 207 | Stopping automatic colour change |
| | 208 ... 229 | Automatic gradual change from colour 34 to 1 in descending order, from fast to slow |
| | 230 ... 234 | Dark |
| | 235 ... 249 | Automatic stepwise colour change, from fast to slow |
| | 250 ... 255 | Sound-controlled colour change |
| 27 | Selection of LED groups (↗ 'LED groups' on page 75) | |
| | 0 ... 7 | Active LED groups: 1, 2, 3, 4, 5 |
| | 8 ... 15 | Active LED groups: 1, 2, 3, 4 |
| | 16 ... 23 | Active LED groups: 1, 2, 3 |
| | 24 ... 31 | Active LED groups: 1, 2 |
| | 32 ... 39 | Active LED group: 1 |

| Channel | Value | Function |
|---------|-------------|----------------------------------|
| | 40 ... 47 | Dark |
| | 48 ... 55 | Active LED group: 5 |
| | 56 ... 63 | Active LED groups: 4, 5 |
| | 64 ... 71 | Active LED groups: 3, 4, 5 |
| | 72 ... 79 | Active LED groups: 2, 3, 4, 5 |
| | 80 ... 87 | Active LED groups: 1, 2, 3, 4, 5 |
| | 88 ... 95 | Active LED group: 5 |
| | 96 ... 103 | Active LED group: 4 |
| | 104 ... 111 | Active LED group: 3 |
| | 112 ... 119 | Active LED group: 2 |
| | 120 ... 127 | Active LED group: 1 |
| | 128 ... 135 | Active LED groups: 4, 5 |
| | 136 ... 143 | Active LED groups: 3, 4 |

| Channel | Value | Function |
|---------|-------------|-------------------------------|
| | 144 ... 151 | Active LED groups: 2, 3 |
| | 152 ... 159 | Active LED groups: 1, 2 |
| | 160 ... 167 | Active LED groups: 1, 5 |
| | 168 ... 175 | Active LED groups: 3, 4, 5 |
| | 176 ... 183 | Active LED groups: 2, 3, 4 |
| | 184 ... 191 | Active LED groups: 1, 2, 3 |
| | 192 ... 199 | Active LED groups: 1, 2, 5 |
| | 200 ... 207 | Active LED groups: 1, 4, 5 |
| | 208 ... 215 | Active LED groups: 2, 3, 4, 5 |
| | 216 ... 223 | Active LED groups: 1, 2, 3, 4 |
| | 224 ... 231 | Active LED groups: 1, 2, 3, 5 |
| | 232 ... 239 | Active LED groups: 1, 3, 4, 5 |
| | 240 ... 247 | Active LED groups: 1, 3, 4, 5 |

| Channel | Value | Function |
|---------|-----------------------------|---|
| | 248 ... 255 | Active LED groups: 1, 2, 3, 4, 5 |
| 28 | Preprogrammed light effects | |
| | 0 ... 15 | No light effect |
| | 16 ... 20 | Light effect 1 (colour setting with channel 26). |
| | 21 ... 25 | Light effect 2 (colour setting with channel 26). |
| | 26 ... 30 | Light effect 3 (colour setting with channel 26). |
| | 31 ... 35 | Light effect 4 (colour setting with channel 26). |
| | 36 ... 40 | Light effect 5 (colour setting with channel 26). |
| | 41 ... 45 | Light effect 6 (colour setting with channel 26). |
| | 46 ... 50 | Light effect 7 (colour setting with channel 26). |
| | 51 ... 55 | Light effect 8 (colour setting with channel 26). |
| | 56 ... 60 | Light effect 9 (colour setting with channel 26). |
| | 61 ... 65 | Light effect 10 (colour setting with channel 26). |

| Channel | Value | Function |
|---------|-------------|---|
| | 66 ... 70 | Light effect 11 (colour setting with channel 26). |
| | 71 ... 75 | Light effect 12 (colour setting with channel 26). |
| | 76 ... 80 | Light effect 13 (colour setting with channel 26). |
| | 81 ... 85 | Light effect 14 (colour setting with channel 26). |
| | 86 ... 90 | Light effect 15 (colour setting with channel 26). |
| | 91 ... 95 | Light effect 16 (colour setting with channel 26). |
| | 96 ... 100 | Light effect 17 (colour setting with channel 26). |
| | 101 ... 105 | Light effect 18 (colour setting with channel 26). |
| | 106 ... 110 | Light effect 19 (colour setting with channel 26). |
| | 111 ... 115 | Light effect 20 (colour setting with channel 26). |
| | 116 ... 120 | Light effect 21 (colour setting with channel 26). |
| | 121 ... 125 | Light effect 22 (colour setting with channel 26). |
| | 126 ... 130 | Light effect 23 (colour setting with channel 26). |

| Channel | Value | Function |
|---------|-------------|---|
| | 131 ... 135 | Light effect 24 (colour setting with channel 26). |
| | 136 ... 140 | Light effect 25 (multi-colour) |
| | 141 ... 145 | Light effect 26 (multi-colour) |
| | 146 ... 150 | Light effect 27 (multi-colour) |
| | 151 ... 155 | Light effect 28 (multi-colour) |
| | 156 ... 160 | Light effect 29 (multi-colour) |
| | 161 ... 165 | Light effect 30 (multi-colour) |
| | 166 ... 170 | Light effect 31 (multi-colour) |
| | 171 ... 175 | Light effect 32 (multi-colour) |
| | 176 ... 180 | Light effect 33 (multi-colour) |
| | 181 ... 185 | Light effect 34 (multi-colour) |
| | 186 ... 190 | Light effect 35 (multi-colour) |
| | 191 ... 195 | Light effect 36 (multi-colour) |

| Channel | Value | Function |
|---------|-------------|---|
| | 196 ... 200 | Light effect 37 (multi-colour) |
| | 201 ... 205 | Light effect 38 (multi-colour) |
| | 206 ... 210 | Light effect 39 (multi-colour) |
| | 211 ... 215 | Light effect 40 (multi-colour) |
| | 216 ... 220 | Light effect 41 (multi-colour) |
| | 221 ... 225 | Light effect 42 (multi-colour) |
| | 226 ... 230 | Light effect 43 (multi-colour) |
| | 231 ... 235 | Light effect 44 (multi-colour) |
| | 236 ... 240 | Light effect 45 (multi-colour) |
| | 241 ... 245 | Light effect 46 (multi-colour) |
| | 246 ... 250 | Light effect 47 (multi-colour) |
| | 251 ... 255 | Light effect 48 (multi-colour) |
| 29 | 0 ... 255 | Preprogrammed effects speed (from slow to fast) |

| Channel | Value | Function |
|---------|-------------|--|
| 30 | 0 ... 255 | Dimmer (0 % to 100 %) |
| 31 | Shutter | |
| | 0 ... 19 | Closed |
| | 20 ... 24 | Open |
| | 25 ... 64 | Strobe effect 1 from fast to slow |
| | 65 ... 69 | Open |
| | 70 ... 84 | Strobe effect 2 (fast on, slow off), from fast to slow consecutively |
| | 85 ... 89 | Open |
| | 90 ... 104 | Strobe effect 3 (slow on, fast off), from fast to slow consecutively |
| | 105 ... 109 | Open |
| | 110 ... 124 | Strobe effect 4 (random), from fast to slow consecutively |
| | 125 ... 129 | Open |
| | 130 ... 144 | Strobe effect 5 (random, fast on, slow off), from fast to slow consecutively |

| Channel | Value | Function |
|---------|------------------|---|
| | 145 ... 149 | Open |
| | 150 ... 164 | Strobe effect 6 (random, slow on, fast off), from fast to slow consecutively |
| | 165 ... 169 | Open |
| | 170 ... 184 | Strobe effect 6 (Pulse series), pulse interval increasing |
| | 185 ... 189 | Open |
| | 190 ... 204 | Strobe effect 8 (Pulse series with random frequency), from fast to slow consecutively |
| | 205 ... 209 | Open |
| | 210 ... 224 | Strobe effect 9 (single pulses), from fast to slow consecutively |
| | 225 ... 229 | Open |
| | 230 ... 244 | Strobe effect 6 (inverted Pulse series), pulse interval increasing |
| | 245 ... 255 | Open |
| 32 | 0 ... 255 | Optical zoom, large to small |
| 33 | Special settings | |

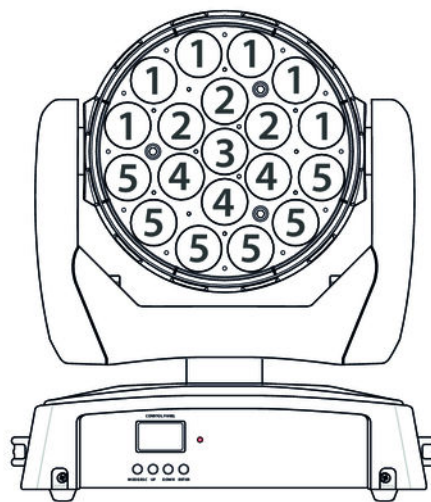
| Channel | Value | Function |
|---------|-----------|---|
| | 0 ... 9 | Without function |
| | 10 ... 14 | Stop of current movement (pan or tilt) |
| | 15 ... 49 | Without function |
| | 50 ... 54 | Rotation position reset |
| | 55 ... 59 | Inclination position reset |
| | 60 ... 64 | Optical zoom reset |
| | 65 ... 69 | Without function |
| | 70 ... 74 | All functions reset |
| | 75 ... 79 | Without function |
| | 80 ... 84 | Inversion of rotation and inclination direction |
| | 85 ... 89 | Inversion of rotation direction |
| | 90 ... 94 | Inversion of inclination direction |
| | 95 ... 99 | Cancel inversion of rotation direction |

| Channel | Value | Function |
|---------|--------------------------------|---|
| | 100 ... 104 | Cancel inversion of inclination direction |
| | 105 ... 109 | Cancel inversion of rotation and inclination direction |
| | 110 ... 114 | Movement speed normal |
| | 115 ... 119 | Movement speed fast |
| | 120 ... 124 | Movement speed slow |
| | 125 ... 129 | Maximum fan speed |
| | 130 ... 134 | Automatic fan speed control depending on device temperature |
| | 135 ... 139 | Dimmer speed fast |
| | 140 ... 144 | Dimmer speed slow |
| | 145 ... 255 | Without function |
| 34 | Preprogrammed movement pattern | |
| | 0 ... 7 | No movement |
| | 8 ... 23 | Movement pattern 1 |

| Channel | Value | Function |
|---------|-------------|---------------------------------------|
| | 24 ... 39 | Movement pattern 2 |
| | 40 ... 55 | Movement pattern 3 |
| | 56 ... 71 | Movement pattern 4 |
| | 72 ... 87 | Movement pattern 5 |
| | 88 ... 103 | Movement pattern 6 |
| | 104 ... 119 | Movement pattern 7 |
| | 120 ... 135 | Movement pattern 8 |
| | 136 ... 151 | Movement pattern 1 with sound control |
| | 152 ... 167 | Movement pattern 2 with sound control |
| | 168 ... 183 | Movement pattern 3 with sound control |
| | 184 ... 199 | Movement pattern 4 with sound control |
| | 200 ... 215 | Movement pattern 5 with sound control |
| | 216 ... 231 | Movement pattern 6 with sound control |

| Channel | Value | Function |
|---------|-------------|---------------------------------------|
| | 232 ... 247 | Movement pattern 7 with sound control |
| | 248 ... 255 | Movement pattern 8 with sound control |

LED groups



MH-z1915 Quad LED Wash Zoom

8 Technical specifications

| | |
|----------------------------------|--|
| Number of DMX channels | 14 or 34 channels, depending on operating mode |
| Illuminant | 19 four-colour LEDs (RGBW, 15 W each) |
| Dispersion angle | 15° |
| Maximum rotation angle (pan) | 540° |
| Maximum inclination angle (tilt) | 270° |
| Dimmer | electronic, 0 ... 100 % |
| Power consumption | 320 W |
| Operating supply voltage | AC 230 V ~, 50 Hz |
| Fuse | 5 mm × 20 mm, 10 A, 250 V, fast-acting |
| Dimensions (W × H × D) | 340 mm × 420 mm × 250 mm |
| Weight | 10.6 kg |

9 Plug and connection assignments

Introduction

This chapter will help you select the right cables and plugs to connect your valuable equipment so that a perfect light experience is guaranteed.

Please take our tips, because especially in 'Sound & Light' caution is indicated: Even if a plug fits into a socket, the result of an incorrect connection may be a destroyed DMX controller, a short circuit or 'just' a not working light show!

DMX connections



The unit offers a 3-pin XLR socket for DMX output and a 3-pin XLR plug for DMX input. Please refer to the drawing and table below for the pin assignment of a suitable XLR plug.

| Pin | Configuration |
|-----|---------------------------------------|
| 1 | Ground, shielding |
| 2 | Signal inverted (DMX-, 'cold signal') |
| 3 | Signal (DMX+, 'hot signal') |

10 Troubleshooting



NOTICE!

Possible data transmission errors

For error-free operation make use of dedicated DMX cables and do not use ordinary microphone cables.

Never connect the DMX input or output to audio devices such as mixers or amplifiers.

In the following we list a few common problems that may occur during operation. We give you some suggestions for easy troubleshooting:

| Symptom | Remedy |
|--|--|
| The unit does not work, no light, the fan does not run | Check the mains power connection and the main fuse. |
| No response to DMX controller | <ol style="list-style-type: none"> 1. The LED 'DMX' should be flashing on data transmission. If it doesn't, check the DMX connectors and cables for proper connection. 2. If the LED 'DMX' lights up without response, check the address settings and DMX polarity. 3. Try using another DMX controller. 4. Check to see if the DMX cables run near or alongside to high voltage cables that may cause damage or interference to DMX interface circuits. |

If the procedures recommended above do not succeed, please contact our Service Center. You can find the contact information at www.thomann.de.

11 Cleaning

Optical lenses

Clean the optical lenses, that are accessible from the outside, regularly in order to optimize the light output. The frequency of cleaning depends on the operating environment: wet, smoky or particularly dirty surroundings can cause more accumulation of dirt on the optics of the device.

- Clean with a soft cloth using our lamp and lens cleaner (item no. 280122).
- Always dry the parts carefully.

Fan grids

The fan grids of the device must be cleaned on a regular basis to remove dust and dirt. Before cleaning, switch off the device and disconnect AC-powered devices from the mains. Use a lint-free damp cloth for cleaning. Never use solvents or alcohol for cleaning.

12 Protecting the environment

Disposal of the packaging material



For the transport and protective packaging, environmentally friendly materials have been chosen that can be supplied to normal recycling.

Ensure that plastic bags, packaging, etc. are properly disposed of.

Do not just dispose of these materials with your normal household waste, but make sure that they are collected for recycling. Please follow the notes and markings on the packaging.

Disposal of your old device



This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE). Do not dispose with your normal household waste.

Dispose of this device through an approved waste disposal firm or through your local waste facility. When discarding the device, comply with the rules and regulations that apply in your country. If in doubt, consult your local waste disposal facility.



